

**GENE THERAPY FOR REGULATING
SMOOTH MUSCLE TONE**

Abstract of the Disclosure

5 The present invention is directed towards a method of regulating
smooth muscle tone, comprising the introduction, into smooth muscle cells of a
subject, of a DNA sequence encoding a protein involved in the regulation of
smooth muscle tone, and expression of the DNA sequence in a sufficient
number of smooth muscle cells of the subject to regulate smooth muscle tone in
10 the subject. Specifically, the invention provides methods of gene therapy for
treating erectile dysfunction, bladder dysfunction, and other smooth muscle
disorders. The present invention also provides recombinant viral and non-viral
vectors comprising DNA encoding a protein involved in the regulation of
smooth muscle tone. Further provided by the present invention is a smooth
15 muscle cell which expresses a gene encoding a protein involved in the
regulation of smooth muscle tone.